



## MEMORANDUM

**DATE:** (DRAFT)

**TO:** Engineering Services Division

**FROM:** Steve McCaslin P.E., Piedmont Permit Section

**THROUGH:** Elizabeth Basil, Director, Engineering Services Division  
Alyson Hayes, Manager, General Permitting and Support Section  
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**SUBJECT: Streamlining PM Source Testing for Requirements Contained in Standard No. 1 and 40 CFR 63, subpart DDDDD**

SC R 61-62.5 Standard No. 1 limits PM emissions from boilers less than 1300 million British thermal units (Btu) per hour (Btu/hr) heat input to 0.6 pounds (lbs) per million Btu heat input. Section VI-Periodic Testing requires Oil-fired boilers greater than 250 million Btu/hr rated input, coal-fired boilers greater than 50 million Btu/hr rated input and woodwaste or combination woodwaste boilers greater than 20 million conduct periodic particular matter emissions tests every two (2) years or as required by permit conditions. The statement "*or as required by permit conditions*" provides the Department flexibility to require source testing on a frequency other than every two years. In addition, the March 5, 1996, EPA *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program* (EPA White Paper No. 2) provides guidance indicating it is acceptable to streamline multiple permit requirements, including monitoring. A facility requesting solely to use the testing required by the 40 CFR 63 Subpart DDDDD National Emissions Standards for Hazardous Air Pollutants for Major Sources (Boiler MACT or Subpart DDDDD) may incorporate this change through a Title V minor modification; however, if other requirements are streamlined a significant modification to the Title V permit would be required.

Sources subject to Subpart DDDDD: Industrial, Commercial, and Institutional Boilers and Process Heaters may be required to conduct source testing for PM emissions on either an annual or every three (3) year schedule. The allowable PM emissions per million Btu/hr heat input in Subpart DDDDD ranges from 0.0011 lb/Million Btu to 0.44 lb/Million Btu compared to Standard No. 1 allowable of 0.6 lbs per million Btu/hr input which is 0.183% to 73% of the Standard No 1 PM limit respectively. In order to conduct a performance test every three years the source must complete two consecutive annual tests and demonstrate they are less than 75% of the allowable PM limit. The source would need to demonstrate during these tests they are emitting 0.137% to 55% of the Standard No. 1 allowable PM limit before being allowed to schedule periodic test every three years.

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The Department has determined that the PM testing as allowed in Subpart DDDDD may be used to determine compliance with Standard No. 1 PM allowable emission limit. Considering the highest allowed PM limit in Subpart DDDDD, a source would have tested at no more than just over half the Standard No. 1 allowable limit in two consecutive annual test in order to schedule a test every three years. Otherwise they will be required to test annually. If a source is able to establish the three year test frequency, it would result in 33% reduction in the number of source tests for Standard No 1 compliance than the every 2 years frequency. Also the PM source testing required by Standard No. 1 does not include a soot blowing run. The PM testing required by Subpart DDDDD requires a soot blowing run and the calculation of a weighted average emissions rate, making it harder to meet the lower emission limitations in subpart DDDDD and more difficult to qualify for the reduced source testing frequency containing in Subpart DDDDD. The Department believes the more stringent emission levels the source must achieve to qualify for the three-year test cycle in Subpart DDDDD offsets the reduced Standard No 1 test frequency and will achieve the same level of compliance.

Caveats:

- This guidance does not apply to Utility boilers which in general are larger than the 1300 million Btu/hr heat input, and as such may have lower Standard No. 1 allowable PM limits. These units may submit a case by case determination to justify using a different source test schedule.
- This guidance applies to sources subject to annual/triennial PM testing under Subpart DDDDD. Sources subject to PM testing under other MACT standards will require a case-by-case review.
- This guidance does not apply to sources where stack test requirements may be less stringent under Subpart DDDDD.
- Both Standard No 1 and Subpart DDDDD limits still apply and the testing results should be compared to both limits for compliance.
- This streamlining guidance does not apply to a facility in non-compliance with Standard No. 1.
- Although Subpart DDDDD testing may be used for Standard No. 1 compliance, all other requirements of Standard No. 1 are applicable.
- CAM, if applicable, is still triggered for Standard No. 1 and may require more stringent testing than Subpart DDDDD. Presumptive MACT (CAM allowance) does not apply to Standard No. 1.

Facilities with boilers designated as “limited use” under the Boiler MACT may request a case by case determination to waive the required source test or extend the time between stack testing. The facility should provide in the request the past compliance history with the PM testing and how the results compared to the standard. Compliance history includes another relevant compliance information, such as compliance with periodic monitoring (Visual emissions, pressure drop, COM) and compliance history with SO<sub>2</sub>, if applicable. The facility should explain how they intend to operate the boiler under limited use. For example, will the 10% capacity be used in one block period or intermittent use? What fuels do they intend to burn?

If the boiler is subject to Compliance Assurance Monitoring (CAM) and stack testing is part of CAM compliance, the facility must submit a new CAM plan. Any changes to the CAM plan deemed to be less stringent will trigger a significant Title V modification; otherwise, it would require a Title V minor modification.

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If a source makes a Title V request (minor mod or during new/renewal) to use the testing required by Subpart DDDDD, the permit engineer should consult with air toxics section to make sure the facility is subject to the annual/triennial testing. The permit engineer should also consult with appropriate Bureau staff to determine if there is an existing Standard No. 1 compliance issue. Once confirmed, include the condition below in the permit to ensure the testing completed provides the proper information to show compliance with Standard No. 1. If at any time the Subpart DDDDD becomes vacated or changed in anyway the Department may at its discretion revert back to a requirement to conduct the source test every 2 years. A file review should be completed for existing sources that request to use the Boiler MACT test schedule based on results of previous MACT testing to confirm the test results.

The following condition should be used in permits for which the testing requirements in 40 CFR 63, Subpart DDDDD, National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters are used for Standard No. 1 compliance. The condition should be placed in the Standard No. 1 testing section.

*SC Regulation 61-62.5 Standard No. 1 requires a PM source test every two (2) years after the initial source test. This requirement shall be deferred to the testing required by 40 CFR 63, Subpart DDDDD, National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. Should the applicability to Subpart DDDDD change or if the testing requirements are modified to be less stringent, the facility will revert to the Standard No. 1 testing requirements. All source tests should be completed to ensure the results are acceptable for use in demonstrating compliance with Standard No. 1 allowable PM emission limits.*

Condition for when testing is waived for a "limited use" boiler.

*Provided the boiler maintains its status as a "limited use" boiler under the Boiler MACT and complies with the "limited use" Boiler MACT requirements a biennial source test will not be required. If at any time the boiler fails to comply with the MACT requirements for a "limited use" boiler, or the applicability to Subpart DDDDD change, a PM source test must be completed within 180 days of being notified by the Department to source test.*

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<b>Record of Revisions</b>	
<b>DATE</b>	<b>Description of Change</b>
	Initial Draft Memo